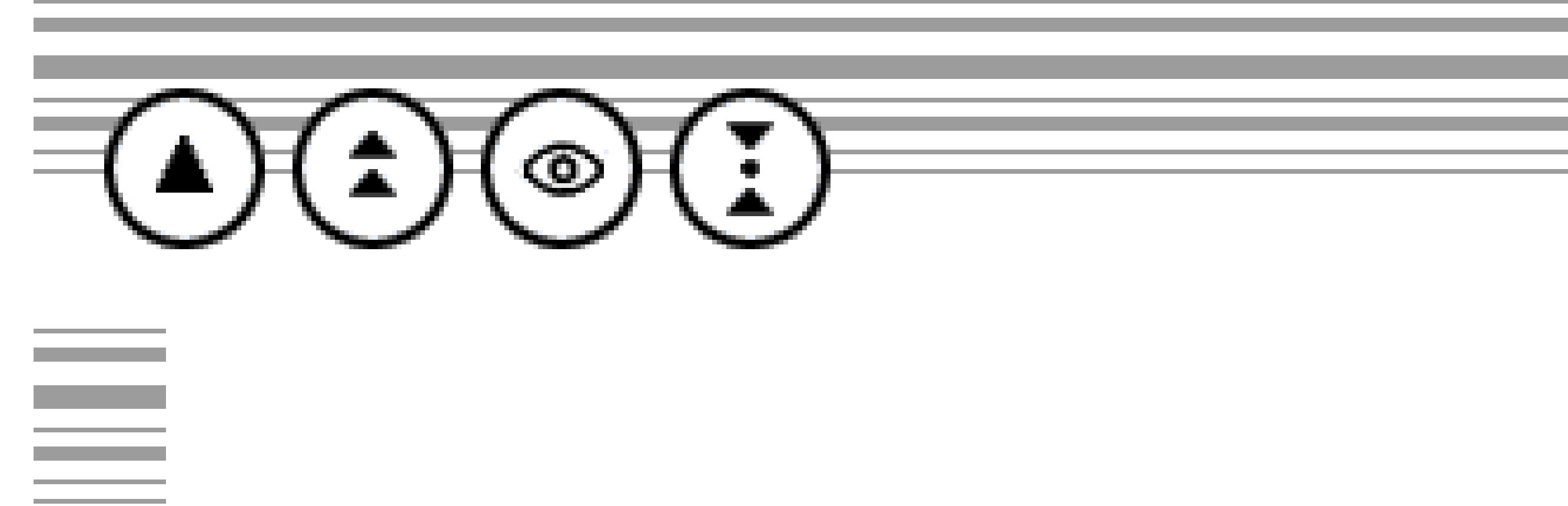


Payloads



THE LONG SPACER

Payload Bay

245 pounds

Overview

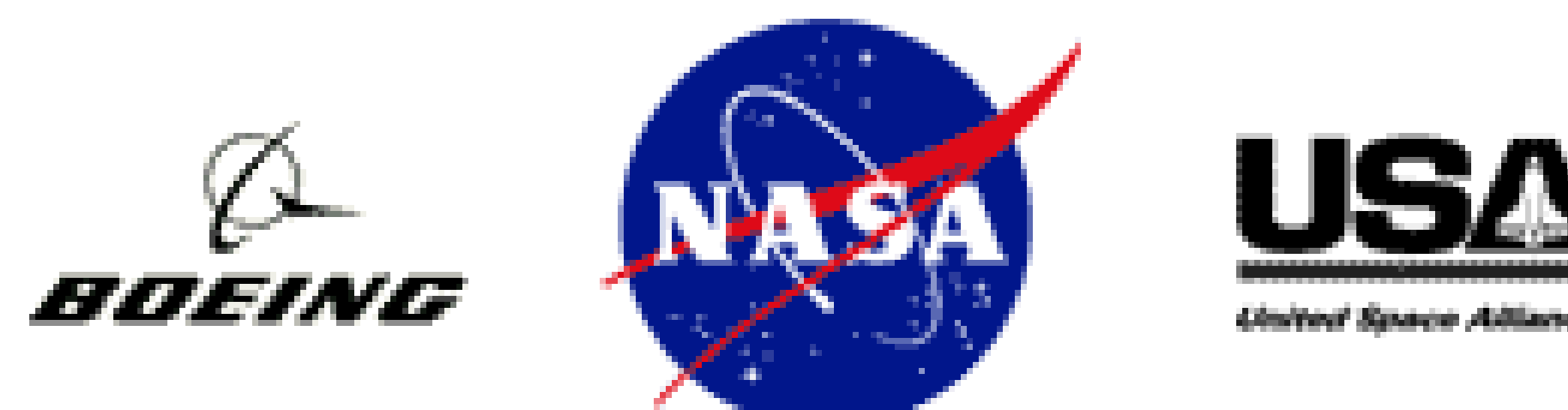
The P6 Long Spacer measures 28 x 16 x 16 feet and performs two basic functions: to physically separate the P6 solar arrays from the P4 solar arrays when the P6 is relocated on a later assembly mission; and to provide temporary cooling for the U.S. Laboratory "Destiny" when it arrives on STS-102/5A early next year. Ultimately, Destiny will be cooled by the main Heat Rejection System (HRS) when it is activated on a later assembly flight.

The long spacer thermal system is called the Early External Active Thermal Control System (EEATCS) and is similar to the IEA's PVTCS with a few exceptions. The EEATCS employs two separate cooling system loops and has two high-power PFCSs each feeding into its own PVR. It also has external ammonia accumulators used for pressure control and heaters to preclude freezing.

The PFCS's flow control valve regulates the ammonia flow through the PVR in response to the Laboratory heat exchanger temperature. The EEATCS is designed to reject 14,000 Watts of heat per orbit and is commanded by the PFCS is under the control of the IEA computer. Each PFCS consumes 350 Watts during normal operations and the heaters consume 115 Watts. It measures 40 x 29 x 19 inches, and weighs 245 pounds.

[Section Index](#) | [Main Index](#) | [Search](#) | [Contacts](#)

Updated: 11/09/2000



Editorial/Technical Comments: [ShuttlePresskit](#)